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*Y.N. Nechitaylo, N.I. Kovtyuk***QUALITY OF LIFE IN SCHOOL AGE CHILDREN WITH HEADACHE**

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**Abstract.** The article presents results of a study of primary headache influence on health-related quality of life in school age children. 84 children with migraine and tension-type headache were examined in comparison with 226 healthy children of the same age. The moderate decrease of

quality of life indexes in children with headache was registered.

**Key words:** headache, quality of life, school age children.

**Background.** Headache is one of the most frequently reported complaints in school age children [6, 12]. The epidemiological surveys of headache in children were conducted in various countries by different investigators and the mean of its prevalence in school age children was estimated in general at the level of about 55 % [1, 8]. The headache also was influenced by time frame (last year, 6 or 3 months, or weekly and daily headache). Prevalence rates of monthly headache in this age group was reported at the level of 23-51 %, for weekly headache – 6 to 44 %, and for daily or almost daily headache – 1-9 % [5, 9]. Surveys conducted in Europe and in Asia also indicate that school-age children report frequent headache with increasing prevalence rates during the last decades [3, 8, 11]. Furthermore, frequent headache in children was associated with negative psychosocial impact such as school absence, higher levels of emotional problems, in particular anxiety and depression, as well as other somatic complaints and lower levels of quality of life [2, 7].

The International Headache Society classifies headache into primary and secondary type in classification of headache disorders [5]. Primary headache is not attributed to any other neurologic or somatic disorder and includes migraine, tension-type headache, cluster headache, autonomic cephalgy and other primary headache. This type constitute the vast majority of headache in childhood and adolescence but mostly it was presented by migraine or tension-type headache (about 90 %). Secondary headache is the result of different diseases or abnormalities. Frequency of headache increases with age in this population.

Headache was associated with substantial functional impairment, which may include physical, mental and emotional ramifications. Many aspects of the children activities are commonly affected by the condition, including occupational, academic, school, social, leisure and family life [4, 9]. It is well known that headache cause substantial impairment during attacks. However, some evidence suggests that migraines and tension-type headache also cause impairment between attacks. In general, children with primary headache report poorer subjective well-being and reduced health-related quality of life (HRQoL) even during pain-free periods but this aspect is not studied sufficiently.

**Objective:** The goal of prospective study was to establish influence of primary headache on children's health-related quality of life.

**Material and methods.** In total 310 children (ages 10-17 years, mean age – 14,7±0,3 years) were enrolled in the study and their demographics were collected. There were 226 healthy persons examined in schools during screening for elevated blood pressure and 84 children with the diagnosis of primary headache (migraine – 26 or tension-type headache – 58) who presented to the children neurology clinics affiliated to Bukovinian State Medical University. We noted the type of headache, parents' report and review of the previous medical records, family history of headache, presence of headache triggers and the socioeconomic status of the family. Diagnosis of migraine and tension-type headache was based on clinical data. We used generic questionnaire of HRQoL with 87-Item Form Health Surveys (CF-87). The CF-87 assesses a range of symptoms associated with common health and some diseases. Statistical analysis was conducted with program Statistica, (version 5.11, StatSoft Inc.). Data were expressed as mean±SD for quantitative variables and as numbers and percentages for categorical variables. Statistical analysis was performed using the Student's t-test for numerical variables. All p-values were two-tailed and p<0.05 was considered statistically significant.

**Results of the research and their discussion.** Migraine and tension-type headache had comparable frequency in different age groups of male and female patients. The frequencies of both migraine and tension-type headache were not significantly higher in the age group of 15-17 years as compared to the age group of 10-14 years. There were no significant differences regarding the prevalence of migraine or tension type headache between different genders in all age group (proportion of male/female was 47,6 % to 52,4 %). The most common clinical presentations of aura in patients with migraine were visual disturbance, confusion, vertigo. As triggering factors for headache were noise, light, smoking, oxygen insufficiency in air, hunger etc. Our results also showed that socioeconomic status of the patients could influence the frequency of headache – lower socioeconomic status was associated with higher frequency of primary headache disorders as migraine and tension-type headache. Intensity of headache was estimated in 5 point scale. Low severity levels of headaches (a score of 1-2) was reported in 57,1 % of patients, about a 34,5 % had medium levels (a score of 3) and

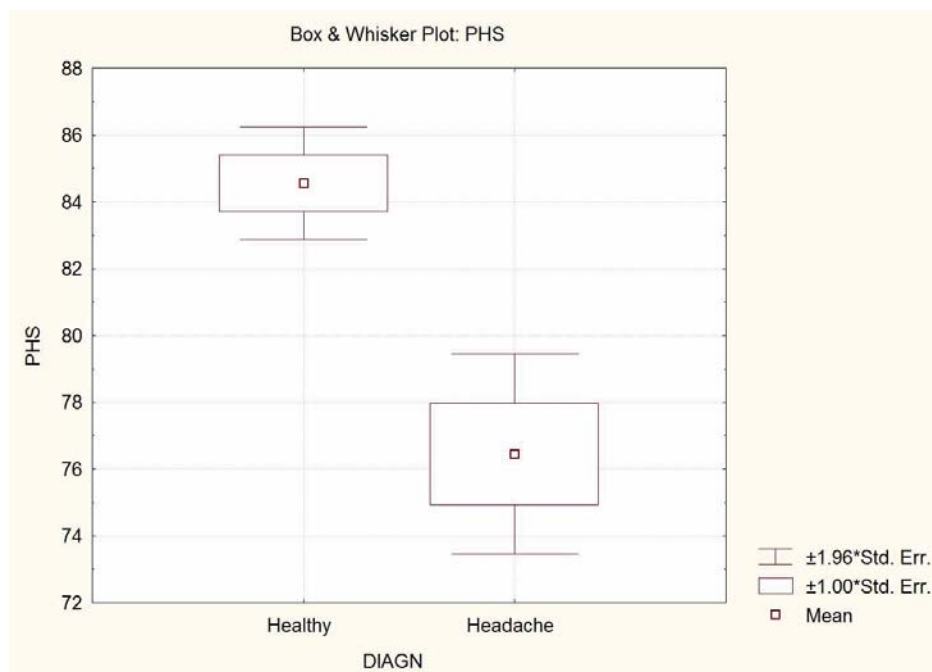


Fig. 1. Index of physical functioning summary in both groups of children

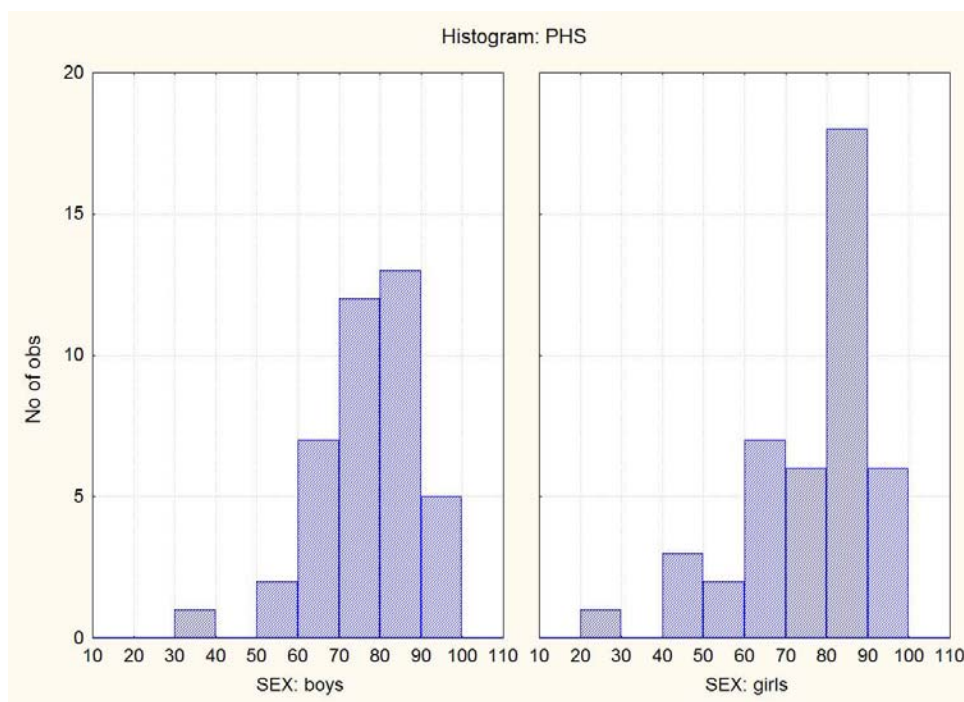


Fig. 2. Frequency of histograms of physical functioning summary index in headache group of children depending of gender

less than 10 % had high levels of headaches (a score of 4-5).

Quality of life is recognized as an important outcome of children health. The generic questionnaire CF-87 in our study demonstrated reliability and validity for child self-report. Children with headache reported a worse HRQoL on physical, social and emotional functioning as compared to age-related healthy individuals. Considering the items included in questionnaire which do not relate to their disease, it may be that children with headache respond emotionally different to such problems than healthy children. Living with their lasting disease possible changed their values, which may be a result of the

process of response shift, which has been described [7]. The moderate decrease of psychosocial well-being, with the weakest agreement on school functioning and the strongest agreement for ratings of physical health was registered. The main parts of HRQoL estimation include physical and mental functioning summary and overall quality of life summary. In our study significant decrease of all components was obtained. The biggest difference between healthy and headache children was seen in physical functioning (PHS) (fig. 1).

We found out some difference in gender depending child self-report. The girl's data had wider

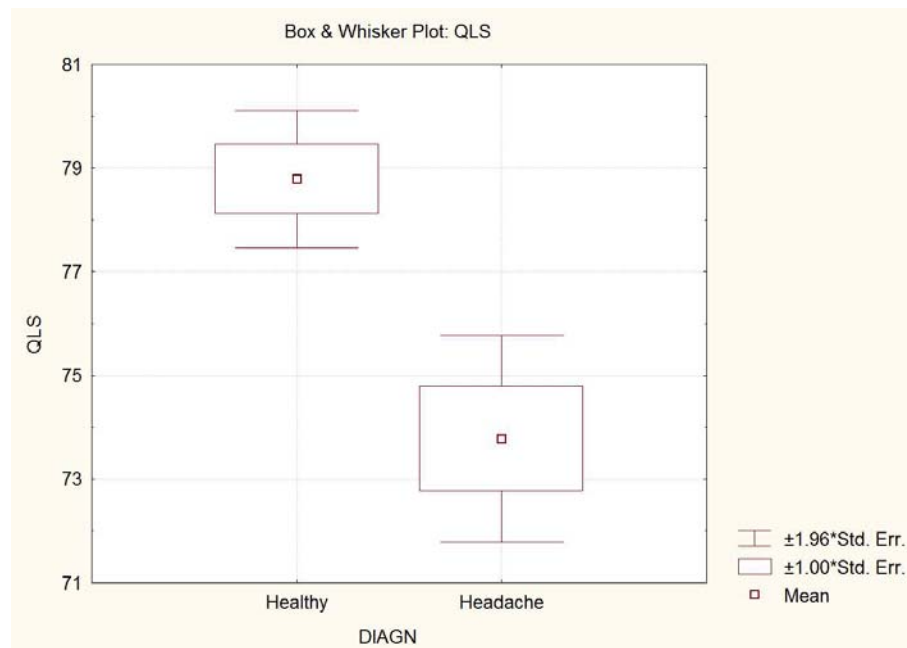


Fig. 3. The overall quality of life summary index in both groups of children

range and general higher assessment of their physical functioning index (fig. 2).

Children with headache reported a worse overall index of HRQoL (QLS) as compared to age-related healthy individuals (fig.3). Thus generic questionnaire CF-87 is particularly useful when comparing health-related quality of life of subpopulations with different diseases with intermittent character, like headache, with a healthy control group.

Quality of life measurement is increasingly recognized as a cornerstone of integrated health-outcome assessment and for the evaluation of clinical interventions in many diseases. Overall, the child health questionnaires appear to be a promising generic instrument for comprehensive quality of life assessment in children with different types of headache. The same conclusion was obtained by P.A. Rocha-Filho et al. while studying influence of headache on health-related quality of life [10].

### Conclusion

Primary headache in children and adolescents is a common problem which influenced health-related quality of life. Physicians need more knowledge about HRQoL indexes and their associated factors in children

**Prospects of further research.** The possible role of psychological and family factors, behavioral characteristics in developing of primary headache in children and their health-related quality of life could be studied. The utility of quality-of-life instruments for individual patient management needs to be evaluated further.

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## КАЧЕСТВО ЖИЗНИ ДЕТЕЙ ШКОЛЬНОГО ВОЗРАСТА С ГОЛОВНОЙ БОЛЬЮ

Ю.Н. Нечитайло, Н.И. Ковтюк

**Резюме.** Проведено изучение влияния первичной головной боли на качество жизни связанное со здоровьем у детей школьного возраста. 84 ребенка с мигренью и головной болью напряжения были обследованы в сопоставлении с 226 здоровыми детьми такого же возраста. Зарегистрировано умеренное снижение индексов качества жизни у детей с головной болью.

**Ключевые слова:** головная боль, качество жизни, дети школьного возраста.

## ЯКІСТЬ ЖИТТЯ У ДІТЕЙ ШКІЛЬНОГО ВІКУ З ГОЛОВНИМ БОЛЕМ

Ю.М. Нечитайло, Н.І. Ковтюк

**Резюме.** Проведено вивчення впливу первинного головного болю на якість життя, пов'язану зі здоров'ям у дітей шкільного віку. Обстежено 84 дитини з мігренню і головним болем напруги порівняно з 226 здоровими дітьми такого ж віку. Зареєстровано помірне зниження індексів якості життя у дітей із головним болем.

**Ключові слова:** головний біль, якість життя, діти шкільного віку

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ПСИХОЛОГІЧНА ДЕЗАДАПТАЦІЯ ЖІНОК  
З ПЕРЕДМЕНСТРУАЛЬНИМ СИНДРОМОМ

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**Резюме.** Проведено вивчення психоемоційного стану у 200 жінок із передменструальним синдромом за шкалами самооцінки тривоги та депресії В. Зунга. Встановлено, що для даної категорії пацієнтів характерним є підвищені рівні тривоги та депресії в лютеїновій фазі менструального циклу, які були найбільш вираженими

в осіб із нейропсихічною, цефалгічною та кризовою формами захворювання.

**Ключові слова:** передменструальний синдром, психоемоційні розлади, тривога, депресія.

**Вступ.** Одним із найбільш поширених нейроендокринних синдромів у гінекології є передменструальний синдром (ПМС). Як відмічається багатьма дослідниками, 80-100 % жінок відчувають хоча б один симптом передменструального розладу в лютеїнову фазу менструального циклу [6, 7, 8]. Симптоми ПМС виникають регулярно в другій фазі циклу в жінок, які мають овуляцію, зникають до кінця менструації та настають за безсимптомним інтервалом. Істотне обмеження повсякденної діяльності, зниження активності на роботі чи під час навчання, погіршення міжособистісних відносин є ключовою особливістю даного нейроендокринного синдрому. Критерії встановлення діагнозу ПМС не є специфічними симптомами і, хоча нараховують їх більше 200, деякі з них вважаються ключовими або типовими. Виділяють дві основні групи симптомів. До психологічних, або поведінкових проявів, належать: перепади настрою, дратівливість, відчуття

гніву, розлади сну, занепокоєння, утруднення концентрації, соціальна самоізоляція, відсутність самоконтролю, відсутність інтересу до звичайної діяльності, відчуття самотності, відчуття тривоги, пригнічений настрій, збентеження, напруженість, відчуття безнадії, зміна апетиту, переїдання або специфічні смакові пристрасті, втома, млявість або нестача енергії та ін. Основними фізичними симптомами є: біль у суглобах, м'язах, спині, набрякання або болючість молочних залоз, здуття живота, головний біль, шкірні розлади, набування ваги, набряки на кінцівках [3-6].

**Мета дослідження.** Вивчення рівня тривоги та депресії в жінок із ПМС.

**Матеріал і методи.** Проведено обстеження 200 жінок із передменструальним синдромом, які становили основну групу. Контрольну групу склали 50 практично здорових жінок без діагнозу ПМС. Верифікацію діагнозу проводили згідно з існуючим положенням наказу № 676 МОЗ Украї-

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